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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/756,558	01/13/2004	Mustafa Hakimuddin	1391-45600	2668

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EXAMINER	
WEST, PAUL M	
ART UNIT	PAPER NUMBER
2856	

DATE MAILED: 01/31/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/756,558	HAKIMUDDIN, MUSTAFA	
	Examiner	Art Unit	
	Paul M. West	2856	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *27 December 2005*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-4,6,8-26,28-47 and 49-77* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) *65-76* is/are allowed.

6)☒ Claim(s) *1,3,6,8,10-14,16-20,22,25,29,30,32-34,38-40,43,46,47,49,51-55,57-60,62 and 77* is/are rejected.

7)☒ Claim(s) *2,4,9,15,21,23,24,26,28,31,35-37,41,42,44,45,50,56,61,63 and 64* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1, 8, 10, 13, 16, 17, 20, 46, 49, 51, 54, 57, 58, and 60 are rejected under 35 U.S.C. 102(e) as being anticipated by Go Boncan et al.

3. As to claims 1 and 46, Go Boncan et al. teach a method of testing cement comprising: introducing cement into a curing vessel 50 inside a test vessel 90, the curing vessel comprising a flexible sleeve (Par. 0022, lines 21-23); placing a curing vessel fluid head on the cement (Par. 0032, lines 6-7); adjusting the temperature and pressure of the test vessel to a selected temperature and pressure (Par. 0032, lines 6-12) while maintaining substantially no pressure differential between the inside and outside of the flexible sleeve; curing the cement at the selected temperature and pressure (Par. 0025, lines 3-6); maintaining the cement at the selected temperature and pressure after the cement has cured and until testing of the cement; and testing the cement for a performance property.

4. As to claims 8 and 49, Go Boncan et al. teach allowing the pressure differential between the inside and outside of the flexible sleeve to adjust as the cement cures.

5. As to claims 10 and 51, Go Boncan et al. use a pressure regulator (Par. 022, lines 4-5).

6. As to claims 13 and 54, Go Boncan et al. teach measuring the change in volume of the cement in the curing vessel as it is curing (Par. 0014, lines 1-3).

7. As to claims 16, 17, 57, and 58, Go Boncan et al. teach performing hydrostatic testing of the cement (Par. 0032, lines 6-8) and measuring axial strain (Par. 0025, lines 12-13).

8. As to claims 20 and 60, the cement is tested by adjusting the volume of the curing vessel (Par. 0022, lines 20-22).

9. Claims 1, 3, 11, 12, 19, 22, 46, 52, 53, 62, and 77 are rejected under 35 U.S.C. 102(b) as being anticipated by Jamth.

10. As to claims 1, 3, 5, and 46, Jamth teaches a method of testing cement comprising: displacing a curing vessel fluid from within a curing vessel 6 by introducing cement into the curing vessel (Col. 3, lines 51-60), the curing vessel 6, comprising a flexible sleeve and being inside a test vessel 1,1' at a selected temperature and pressure; placing a curing vessel fluid head on the cement (Col. 4, lines 4-6); maintaining substantially no pressure differential between the inside and the outside of the curing vessel as the cement is introduced (Col. 2, lines 49-50); curing the cement at the selected temperature and pressure (Col. 2, lines 25-27); maintaining the cement at the selected temperature and pressure after cement has cured and until testing of the cement; and testing the cement for a performance property.

11. As to claims 11, 12, 52, and 53, Jamth teaches maintaining the temperature in the test vessel above 250°F while the cement cures (Col. 2, lines 39-40) using a heating jacket (Col. 4, lines 14-15).

12. As to claims 22 and 62, Jamth teaches the curing vessel 6 comprising first and second end caps 14,14' and a flexible sleeve adapted to contain the cement. Note that the sleeve must be somewhat flexible in order for the cement sample to be removed after curing (Col. 4, lines 18-19).

13. As to claims 19 and 77, the cement is tested by adjusting the pressure inside the curing vessel with a pressure fluid inlet line 16' (Col. 5, lines 41-42).

Claim Rejections - 35 USC § 103

14. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

15. Claims 6, 18, 25, 29, 30, 32-34, 38-40, 43, 47, and 59 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jamth.

16. As to claim 25, Jamth teaches a method of testing cement comprising: introducing a curing vessel fluid into a curing vessel 6 that is inside a test vessel 1,1' (Col. 3, lines 51-60), the curing vessel comprising a flexible sleeve; displacing a curing vessel fluid from within a curing vessel 6 by introducing cement into the curing vessel (Col. 3, lines 51-60), the curing vessel 6 being inside a test vessel 1,1' at a selected

temperature and pressure; maintaining substantially no pressure differential between the inside and the outside of the curing vessel as the cement is introduced (Col. 2, lines 49-50); curing the cement at the selected temperature and pressure (Col. 2, lines 25-27); maintaining the cement at the selected temperature and pressure after cement has cured and until testing of the cement; and testing the cement for a performance property. Jamth does not explicitly teach adjusting the curing vessel fluid temperature and pressure to a selected temperature and pressure, however Jamth does teach simulating true drilling conditions throughout testing. Therefore, it would have been obvious to one of ordinary skill in the art to adjust the temperature and pressure of the curing vessel fluid in order to simulate pressure and temperature conditions that are normally present before the introduction of cement.

17. As to claims 6, 29, and 47, Jamth teaches all of the limitations as set forth above and further teaches introducing cement through a first fluid line 16 and the curing vessel 6 comprising first and second end caps 14,14' and a flexible sleeve. Jamth does not explicitly disclose the fluid line being controlled by a valve, however it would have been obvious to one of ordinary skill in the art to use a valve on the fluid line because valves are a common and well-known way to control the flow of fluid material through a pipe, hose, or inlet.

18. As to claims 18, 40, and 59, Jamth does not explicitly teach determining a specific property of the material, however Jamth does teach subjecting the cement to large axial pressures. It would have been obvious to one of ordinary skill in the art to

test the failure strength of the cured cement, because this is common and well-known way to determine the limits of usability of a material or structural component.

19. As to claim 30, the pressure differential between the inside and the outside of the flexible sleeve is allowed to adjust as the cement cures (Col. 4, lines 9-12).

20. As to claim 32, fluid is introduced into the test vessel to reach a specific pressure and therefore a pump or some type of pressure regulator is inherent (Col. 4, lines 4-6).

21. As to claims 33 and 34, Jamth teaches maintaining the temperature in the test vessel above 250°F while the cement cures (Col. 2, lines 39-40) using a heating jacket (Col. 4, lines 14-15).

22. As to claims 38, and 39, the testing is done in a hydrostatic condition and axial pressure is measured (Col. 6, lines 28-30 and lines 38-42).

23. As to claim 43, Jamth teaches the curing vessel 6 comprising first and second end caps 14,14' and a flexible sleeve adapted to contain the cement. Note that the sleeve must be somewhat flexible in order for the cement sample to be removed after curing (Col. 4, lines 18-19).

24. Claims 14 and 55 are rejected under 35 U.S.C. 103(a) as being unpatentable over Go Boncan et al. in view of Jamth.

25. As to claims 14 and 55, Go Boncan et al. teach all of the limitations as set forth above and further teach 3 different strain gauges for measuring changes of the cement in 3 different directions (Par. 0025, lines 11-13). Go Boncan et al. also suggest that the shape of the curing vessel could be modified. Go Boncan et al. do not teach strain

gauges for measuring changes in radial and axial directions. Jamth teach a cylindrical curing vessel. It would have been obvious to one of ordinary skill in the art to use a cylindrical shaped curing vessel as taught by Jamth with the method of Go Boncan, in which case the 3-axis strain gauges taught by Go Boncan would measure changes in the radial and axial direction, because cylindrical molds are easier to remove cured cement samples from.

Allowable Subject Matter

26. Claims 65-76 are allowed.

27. Claims 2, 4, 9, 15, 21, 23, 24, 26, 28, 31, 35-37, 41, 42, 44, 45, 50, 56, 61, 63, and 64 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

28. Applicant's arguments filed 27 December 2005 have been fully considered but they are not persuasive. Applicant has argued that neither Go Boncan et al. nor Jamth teach a flexible sleeve or maintaining substantially no pressure differential between the inside and outside of the flexible sleeve. It should be noted that the term "flexible" without further defining the material, does not substantially limit the claim, as nearly any material, e.g. metal, plastic, wood, can be considered flexible. As to maintaining substantially no pressure differential between the inside and outside of the flexible

sleeve, Go Boncan et al. clearly teach applying the pressure within the test vessel 90, which is distributed across the curing vessel 50 (Par. 0032), and therefore no pressure differential is created between the outside and inside of the flexible sleeve 50. Jamth teaches that a differential pressure **may** be applied but does not have to be, and also states that this differential pressure may be equal to zero (Col. 2, lines 49-50).

Conclusion

29. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Paul M. West whose telephone number is (571) 272-8590. The examiner can normally be reached on Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hezron Williams can be reached on (571) 272-2208. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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